

REMARKS

Reconsideration and allowance of this application, as amended are respectfully requested.

A new title has been proposed that is believed to be more descriptive.

The claims have been revised in accordance with the formality issues raised by the Examiner.

The prior art grounds of rejection are respectfully traversed. It is believed that the claims, as amended, patentably define over each reference of record and any combination of the references of record.

Our claimed inventions relate in general to making an ID that includes image data extracted from an area inside of an 'edge' of a photograph. An image is read from an area which is larger than a predetermined photographic size. Image data so obtained is processed with a spatial filter to extract vertical and horizontal components thereof. From among these components several components that are similar to those of a predetermined photograph size are selected. Selected components are determined to represent the 'edge' of the photograph. The image is extracted from inside the region defined by the edge in such a manner that the photographic image does not contain the photograph edge. The photographic image is enlarged to the predetermined size, thereby obtaining a figure photograph.

Parluskis discloses a technique for extracting a figure image from the rest of an image field. However, it does not teach or suggest our claimed combinations of features, such as detecting a photograph edge or extracting a photographic image without its edge.

Hakamatsuka teaches extracting a figure image, a technique for preventing forgery based on changing background data and a technique for making an ID card. However, it does not teach or suggest our claimed combinations. Such as detecting a photograph edge and extracting a photographic image without its edge.

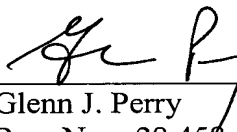
Enomoto discloses an image synthesis technique for producing a print having an arbitrary background or characters. It does not teach or suggest our claimed combinations of features.

All matters having been attended to, Notice of Allowance is respectfully solicited.

Respectfully submitted,

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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

2. (Amended) An ID card-making apparatus comprising card-making means for detecting a photograph portion from image data, extracting a target image from the detected photograph portion, and making an ID card based on the target image, [An ID card-making apparatus according to claim 1, further] comprising:

image reading means for reading an image from a predetermined area, within which at least a photograph is present;

an image processing section including (i) photograph position detection means for detecting a photograph portion from image data obtained by the image reading means [;] and (ii) photographic image extraction means for extracting a photographic image [from the photograph portion detected by the photograph position detection means, said photographic image being extracted] from an area which is inside a region defined by [the] a photograph edge [detected by the photograph position detection means] and which excludes the photograph edge , said photograph edge being detected by comparing vertical and horizontal components of the photograph portion detected by the photograph position detection means with those of predetermined photograph size; and

ID card-making means for making an ID card to which the photographic image extracted by the photographic image extraction means of the image processing section.

3. (Amended) An ID card-making apparatus [according to claim 1, further comprising:] for detecting a photograph portion from image data, extracting a target image from the detected photograph portion, and making an ID card based on the target image, comprising:

image reading means for reading an image from an area that is large enough to include a photograph of predetermined size attached to a predetermined application form;

an image processing section including (i) photograph position detection means for detecting a photograph edge by comparing vertical and horizontal components included in

[from] image data obtained by the image reading means with those of predetermined photograph size and (ii)[;] photographic image extraction means for extracting a photographic image from an area which is inside a region defined by the photograph edge detected by the photograph position detection means and which excludes the photograph edge; and

ID card-making means for making an ID card to which the photographic image extracted by the photographic image extraction means of the image processing section is attached.

4. (Amended) An ID card-making apparatus [according to claim 1, further] for detecting a photograph portion from image data extracting a target image from the detected photograph portion, and making an ID card based on the target image, comprising:

image reading means for reading an image from an area that is large enough to include a photograph of predetermined size attached to a predetermined application form;

an image processing section including (i) photograph position detection means for detecting a photograph edge by comparing vertical and horizontal components included in [from] image data obtained by the image reading means with those of predetermined photograph size; (ii) photographic image extraction means for extracting a photographic image from an area which is inside a region defined by the photograph edge detected by the photograph position detection means and which excludes the photograph edge; (iii) figure image extraction means for extracting a figure portion from the photographic image extracted by the photographic image extracting means; (iv) background image storage means for storing background image data; (v) image synthesis means for producing a composite image by synthesizing the background image data stored in the background image storage means with figure portion data extracted by the figure image extraction means; and

card-making means for making an ID card to which the composite image produced by the image synthesis means is attached.

8. (Amended) An ID card-making method [according to claim 7, further] comprising:
an image reading step for reading an image from an area that is large enough to include a photograph of predetermined size attached to a predetermined application form;
a photograph position detection step for detecting a photograph edge [from] by comparing vertical and horizontal components included in image data obtained in the image reading step with those of predetermined photograph size;
a photographic image extraction step for extracting a photographic image from an area which is inside a region defined by the photograph edge detected in the photograph position detection step and which excludes the photograph edge; and
a card-making step for making an ID card to which the photographic image extracted in the photographic image extraction step is attached.

9. (Amended) An ID card-making method [according to claim 7, further] comprising:
an image reading step for reading an image from an area that is large enough to include a photograph of predetermined size attached to a predetermined application form;
a photograph position detection step for detecting a photograph edge [from] by comparing vertical and horizontal components included in image data obtained in the image reading step with those of predetermined photograph size;
a photographic image extraction step for extracting a photographic image from an area which is inside a region defined by the photograph edge detected in the photograph position detection step and which excludes the photograph edge;
a figure image extraction step for extracting a figure portion from the photographic image extracted in the photographic image extracting step;
an image synthesis step for producing a composite image by synthesizing background image data stored beforehand with figure portion data extracted in the figure image extraction step; and

a card-making step for making an ID card to which the composite image produced in the image synthesis step is attached.

12. (Amended) An ID card [according to claim 11,] comprising a photographic image attached thereto, said photographic image being made by reading an image from an area that is large enough to include a photograph of predetermined size attached to a predetermined application form; detecting a photograph edge by comparing vertical and horizontal components included in [from] obtained image data with those of predetermined photograph size; and extracting a photographic image from an area which is inside a region defined by the detected photograph edge and which excludes the photograph edge; and using the extracted photograph.

13. (Amended) An ID card [according to claim 11,] comprising a composite image that is made by: reading an image from an area that is large enough to include a photograph of predetermined size attached to a predetermined application form; detecting a photograph edge by comparing vertical and horizontal components included in [from] obtained image data with those of predetermined photograph size; extracting a photographic image from an area which is inside a region defined by the detected photograph edge and which excludes the photograph edge; extracting figure portion data from the extracted photographic image; and producing a composite image by synthesizing background image data stored beforehand with the extracted figure portion data.

End of Appendix